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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,461	12/23/2003	Thomas Thoroe Scherb	P24575	8138

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EXAMINER	
HUG, ERIC J	
ART UNIT	PAPER NUMBER
1731	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/19/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/743,461	SCHERB ET AL.	
	Examiner	Art Unit	
	Eric Hug	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2006 and 03 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 12-33* is/are rejected.

7)☒ Claim(s) *9-11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicant's request to reopen prosecution has been considered. In view of the Decision from the Board of Patent Appeals and Interferences of November 3, 2006, and in view of Applicant's arguments, prosecution is hereby reopened. A new grounds of rejection is set forth below.

Grounds of Rejection

1. Claims 1-4, 7-8, 12-21, and 24-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Edwards (US 6,248,210). Edwards discloses a pressing unit for dewatering an absorbent fibrous web such as tissue paper. The pressing unit includes a shoe press acting on a Yankee drying cylinder. The Yankee serves as the backing roll for the press shoe of the shoe press. The web contacts the drying surface of the Yankee. Underlying the web are a water-absorbent felt and an impermeable shoe press belt (blind bored or grooved, column 3, lines 57-59) that circulates the press shoe. Figure 9 shows the arrangement. Nip pressure profiles are illustrated for a shoe press in Figures 3, 7, and 8. The nip pressure profile for a shoe press is asymmetrical, with the peak pressure occurring near the end of the shoe where the web runs out of the press nip. The profile gradually increases to the peak pressure then steeply drops off.

Column 5, lines 18-49, which discuss the use of suction pressure rolls on a Yankee dryer, establishes the upper limit for the line load of the Yankee dryer. In particularly, lines 29-31 state:

> " The deflection of large, conventional Yankee dryers due to hoop stress levels limits the line load to less than 100 kN/m."

Column 5, lines 50-55 discusses the use of conventional shoe presses on a Yankee dryer with the same limited line load:

> "The use of conventional shoe presses on a Yankee dryer at the maximum hoop stress limit of 100 kN/m would lead to very low peak pressures at FIGS. 2 and 3 demonstrate.

> For example, with a 120 mm shoe at 100 kN/m, the typical peak pressure is on the order of 1700 kN/m as FIG. 3 demonstrates."

It is this example that anticipates the claimed invention. The shoe length of 120 mm reads on the claimed range of greater than approximately 8 mm. The peak pressure is equivalently 1.7 MPa and reads on the claimed less than or equal to approximately 2 Mpa. The maximum line load of 100 kN/m reads on the claimed range of 90-110 kN/m (as claimed in dependent claims). The other claimed features, namely a tissue web, an absorbent band, and an impermeable band are all discussed above.

The features described above also read on the shoe press features and operating conditions of claims 2-4, the shape of the pressure profiles of claims 7 and 8, the features of web, felt, and belt of claims 16-18 and 21, the shoe press roll with jacket of claims 27 and 28 (by virtue of combination of a press shoe and a circulating belt), and the replaceable press shoe of claim 29 (by virtue of being able to use shoes of different lengths). Additional press nips and suction devices relating to claims 24-26 are disclosed in column 11, line 8 to column 12, line 25. Regarding the pressure dropoff of claims 12-15, the pressure drop occurs over the last few mm of the press shoes and clearly higher than 1000 MPa/mm as can be seen in Figure 3. Regarding claims 19, 20, and 30-32, useful felts are disclosed in column 1, line 64- column 2, line 5, and in column 2, line 61-column 31. These include felts comprising a base fabric with a stratified batting, and felts structured for imprinting a pattern onto the web. The claimed structural features of 19, 20, and 30-32 are known structural features for the types of papermaking felts disclosed by Edwards.

2. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Laapotti (US 5,043,046). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards discloses that the press shoe extends cross-wise the width of the web, but does not disclose that the press shoe comprises a plurality of press elements arranged cross-wide and adjacent to one another, such press elements adapted to press the press shoe against the drying cylinder and being actuatable independently of one another. However, these features of a shoe press are well known as exemplified by the shoe press of Laapotti. Laapotti in Figure 2 teaches using a plurality of press elements in the cross-wise direction in order to control crowning, which is known to affect the widthwise quality of the web. Therefore, at the time of the invention, it would have been obvious to one skilled in the art that the press shoe of Edwards would comprise the above mentioned press elements in order to press a web uniformly across its width.

3. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Bluhm et al (US 5,556,511) and Tapio et al (US 4,139,410). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards discloses using only a single press nip at the Yankee dryer rather than the claimed additional press nip.

The use of two or more press nips with a heated drying cylinder is well known as exemplified by Bluhm and Tapio. Bluhm discloses the use of a shoe press 9' against a surface of

a heated counter roll 9, which Bluhm expresses as being advantageous for drying of tissue papers. The use of a wide nip avoids hurting the quality of a tissue web as compared to a conventional roll-roll press nip. Figure 5 shows the use of two shoe presses 9' against the heated counter roll, in which Bluhm says can be advantageous depending on the drying requirements (column 5, lines 1-8). The known use of a Yankee drying cylinder is also discussed by Bluhm in column 1, lines 16-24, so there is some suggestion by Bluhm for using the two shoe presses against the surface of a Yankee drying cylinder. Even if it not readily apparent that the two shoe presses can be used against a Yankee drying cylinder, Tapio is cited here to exemplify that the use of two press nips against a Yankee drying cylinder is well known for the purpose of further drying the web enabling it to adhere better to the Yankee cylinder when later creped. Therefore, at the time of the invention it would have been obvious to one skilled in the art to utilize an additional shoe press nip against the Yankee drying cylinder in Edwards, as taught by Bluhm and Tapio to improve the drying of the tissue web as conditions dictate and to insure adhesion of the web to the Yankee dryer during creping.

4. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards in view of Sauer (US 5,019,211). Edwards described in detail above discloses a press for pressing and dewatering an absorbent fibrous web such as tissue paper using a shoe press on a Yankee dryer. Edwards does not disclose a web having curled fibers, however the use of curled fiber in making absorbent webs is well known in the art, as disclosed by Sauer. Sauer discloses method steps of making absorbent webs with curly fibers that include drying on a Yankee dryer and creping.

Therefore, at the time of the invention, it would have been obvious to one skilled in the art that the shoe press of Edwards would be useful for making absorbent webs with curly fibers.

Allowable Subject Matter

Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The claims are allowable for further providing that the average pressure rise gradient which extends from a beginning of the press nip up to the maximum pressing pressure is greater than or equal to approximately 40 kPa/mm. It is clear from Figure 3, for the 120 mm shoe, that the pressure gradient is substantially less than 40 kPa/mm.

Response to Arguments

The above rejections take into consideration Applicant's arguments and arguments presented by the Board in its decision on November 3, 2006. Although a rejection of claims under 35 U.S.C. 102(e) over Edwards was presented previously, it is felt that the above rejection clearly points out the passages of Edwards which anticipate the claimed invention. It also clarifies that the recited combination of elements is expressly disclosed by Edwards, and is not a result of "picking and choosing " of elements as alluded to on page 5 of the Board's Decision. Regarding Applicant's arguments, the examiner does not dispute that Edwards teaches against the claimed invention, see particularly column 5, lines 55-65 of Edwards. However, the examiner disagrees that because of such teachings that Edwards does not anticipate the claimed

invention. See MPEP 2123 and 2131.05. The decisions of the CAFC cited herein, in particular Celeritas Technologies Ltd. v. Rockwell International Corp., 150 F.3d1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998), clearly point out that the prior art anticipates a claimed invention even if it teaches away from the claimed invention. Therefore, the examiner must conclude that the example of the conventional shoe press with a Yankee dryer disclosed by Edwards is anticipatory, despite the teachings against it.

Regarding the rejection under 103(a) set forth by the Board's Decision, the examiner is in agreement with Applicant that is would not be obvious to combine elements from various disclosures not directly related to each other to arrive at the claimed invention, because the teachings of Edwards clearly goes against the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is 571 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Eric Hug